DECCMA

DELTAS, VULNERABILITY AND CLIMATE CHANGE: MIGRATION AND ADAPTATION

The low elevation of deltas puts their 500 million, mostly poor inhabitants worldwide at risk from sea level rise and other climate change impacts. The adaptive strategies currently available to delta residents may not be adequate to cope with pervasive, systematic, or sudden changes. Given this, migrations and other large movements of people are often projected as a consequence of climate change in deltas, with far-reaching socioeconomic and political implications. Deltas, Vulnerability and Climate Change: Migration and Adaptation (DECCMA) is a 5-year programme of applied research on these movements and the opportunities and challenges they create for sustainable development in deltas in Ghana, India and Bangladesh. Aiming to better inform policies and practice at the local, national and international levels, DECCMA takes a unique approach to migration as one of many adaptation strategies, examining its effectiveness in the context of other options.

Deltas and climate change

Large tracts of land at low elevation make deltas vulnerable to climate change impacts like sea level rise. With some of the highest population densities in the world, deltas are also subject to the stresses of urbanisation and intensive land use, which can exacerbate these impacts. Many delta inhabitants are already coping with seasonal flooding and storm surges, but existing adaption strategies like disaster risk reduction, land use management and polders, may be inadequate responses to future climate change impacts.

Migration, an established household-level adaptation strategy to cope with environmental and economic change, is often projected as a response to climate change in deltas. It can result in increased resilience of the migrant household, but it can also perpetuate vulnerability in a new location, and may impact men and women differently. DECCMA seeks to understand the conditions for both kinds of outcomes.

DECCMA's objectives

DECCMA aims to assess the effectiveness of adaptation options including migration in deltaic environments with a changing climate, and to deliver policy support to create the conditions for sustainable gender-sensitive adaptation.

In order to achieve these aims, DECCMA seeks to:

- understand the conditions that promote migration and its outcomes;
- identify gender-specific adaptation options for populations unable to migrate;

Key questions

1. What are the current migration trends in the Ganges-Brahmaputra-Meghna, Volta and Mahanadi deltas?
2. What are the drivers of migration today in these deltas, including climatic drivers, and how might they change in the future?
3. What are the current and potential adaptation options, including migration?
4. Which adaptation options are successful today, and could be in the future?
5. What are the impacts of other adaptation options on migration and vice-versa?

500 million

people living in deltas are at risk to climate change impacts

- understand how climate change-driven global and national macroeconomic processes impact the migration of men and women in deltas; and
- identify feasible and desirable adaptation options and support the implementation of stakeholder-led gender-sensitive adaptation policy choices.

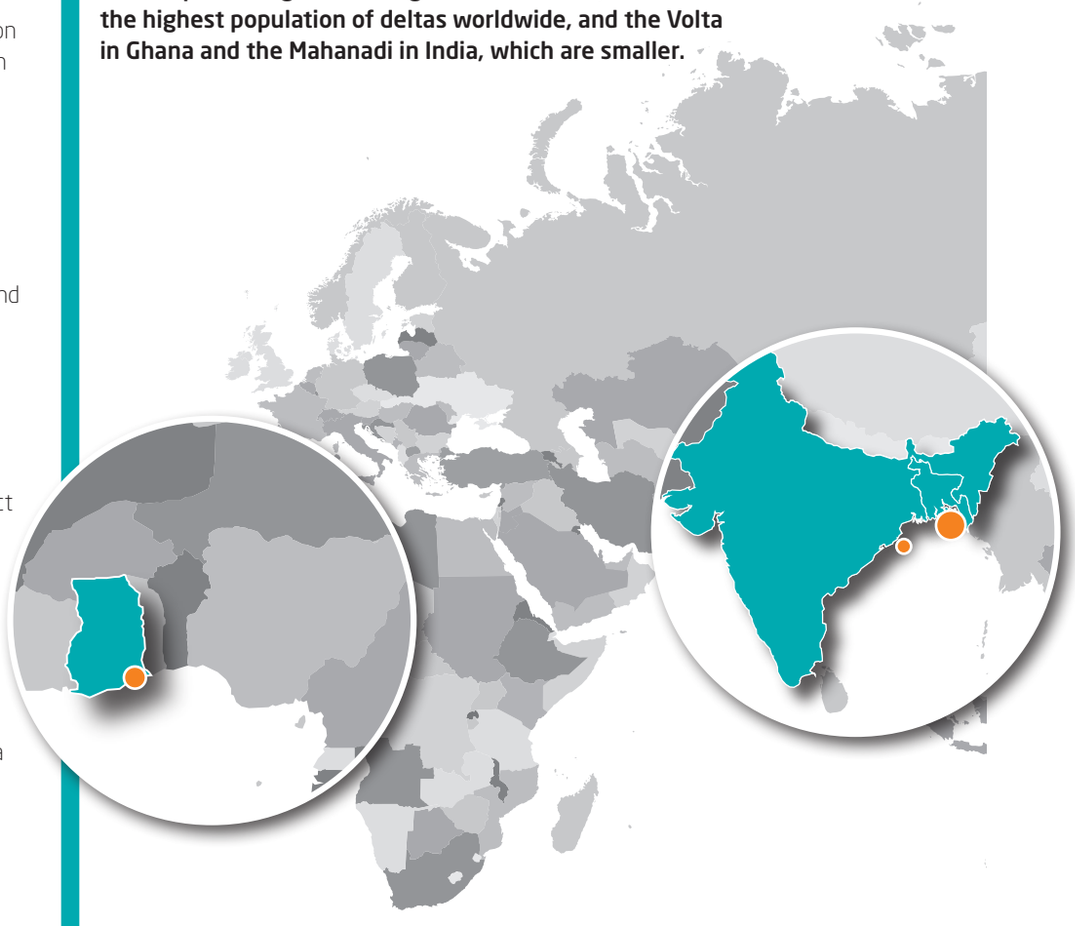
The research aims to guide the allocation of climate finance for the large-scale implementation of adaptation policies and options in the three deltas, with the potential to reach several hundred thousand people in these areas.

Our approach

DECCMA analyzes the impacts of climate change and other environmental drivers across three contrasting deltas. The project studies migration processes using survey, participatory research and economic methods. Potential migration of men and women will be compared to other adaptation options using a stakeholder-driven integrated assessment approach. DECCMA is also reaching out to projects and initiatives in other deltas across Africa and Asia to transfer knowledge.

Where we work

The research focuses on three deltas: the Ganges-Brahmaputra-Meghna in Bangladesh and India, which has the highest population of deltas worldwide, and the Volta in Ghana and the Mahanadi in India, which are smaller.



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Collaborative Adaptation Research Initiative in Africa and Asia

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